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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,219	12/04/2001	Masafumi Nishitani	Q67539	9175

7590 05/05/2004

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EXAMINER

DUONG, THANH P

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/000,219	NISHITANI ET AL.	
	Examiner	Art Unit	
	Tom P Duong	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-12 and 15-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-12 and 15-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date, _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on June 9, 2000. Again, it is noted that applicant has not filed a certified copy of the 2000-173840 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 3-7, 9-12, and 15-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minabe (5,961,394). Regarding 1, 7, 15-16, and 23, Minabe discloses a wood-type, golf club head comprising a shaft 26 attached to a hollow metal head 12 wherein the metal head (Figure 1) including a plurality of pieces (upper surface 20, side periphery bottom surface 22, face member 10) are welded together by laser welding (Col. 4, lines 1-14). With respect to the face member having a plurality of pieces and fixed together by laser welding, it is conventional for golf club's manufacture to fabricate the club head body into plurality of pieces to facilitate assembly, optimize mass distribution, and improve structural strength. Minabe discloses joining of club parts by laser welding technique, but does not disclose laser welding the face member

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including a plurality of pieces. However, Applicant should note that by providing a plurality of face pieces, then laser welding the pieces together will inherently result more welding seams and labor cost. These welding seams of the face member now have more stress concentration, which increases the likelihood for premature failure of the face member during its lifetime usage. Addition, it would have been obvious in view of Minabe to one having ordinary skill in the art to either laser welding a single piece face member or laser welding face member with plurality of pieces since welding a single face member or welding a plurality of face members is merely a duplication of welding process for joining club parts. With respect to the rolling or forging of metal sheets, it is conventional to manufacture metal parts by rolling, forging, casting, stamping, and punching, and it would have been obvious to do so here to facilitate assembly.

Regarding claims 3-4 and 9-10, Minabe discloses a face member 10 with thickness ranging from 2.5-3.5 mm and head body 12 with thickness about 1.2 mm (Col. 3, lines 25-37), and different alloy materials can be welded together. Regarding claims 5-6 and 11-12, Minabe's club head appears to disclose least 60% of the metal pieces are made of the same material (Col. 3, lines 4, lines 23-27) and the difference in melting points between metal pieces less than 250° or less. With respect to laser welding the metal pieces so that the metal pieces appear on an outside common surface of the striking face member in claim 7, Minabe shows laser welding of the face member 10 with the head body 12 along the periphery front edge and welding along the periphery edge is on the outside common surface of the striking face. Regarding claims 17-18, Minabe shows the welding of outer piece (22) overlapping the inner piece (10). Regarding claim

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19, Minabe appears to show the laser welding surface form of a smooth continuous surface. Regarding claim 20, Minabe discloses the face member 10 is plastically deformed to form the face shape by forging process. (Col. 3, lines 40-41). Regarding claim 33, it is conventional to sand and/or buff or post machining to remove the burr resulting from laser welding and it would have been obvious to do so here to provide a smooth finish surface for priming and painting. Regarding claim 34, it is conventional to manufacture metal parts by rolling, forging, casting, stamping, and punching, and it would have been obvious to do so here to facilitate assembly. Claims 21-22 recite limitations similar to claims 7 and 19; thus, claims 21-22 are rejected for the same reasons as applied to claims 7 and 19, above. Regarding claims 24, 27, and 30, Minabe discloses a hollow club head body 12 comprising a shaft (26), opening in the crown (Fig. 1). Minabe does not disclose expressly a crown member made of a plurality of pieces and the piece appears on the outside of the crown member and fixed by laser welding; and a side wall member made of plurality of pieces and the pieces appears on the outside of the crown member. However, providing a crown member, a side wall member, and a sole member with one piece, two pieces, three pieces, and so on, and joining these pieces by laser welding to form a club head is merely a duplication of forming plural club parts and duplication of welding process. It would have been obvious in view of Minabe to one having ordinary skill to manufacture club head with a few parts or multiple club parts and joining a few club parts or multiple club parts by laser welding technique, since providing club parts into plurality of pieces are merely a duplication of making smaller club parts, which inherently increases labor cost and reduces strength in

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the club head body. Claims 25-26, 28-29, and 31-32 recite limitations similar to claim 1; thus, claims 25-26, 28-29, and 31-32 are rejected for the same reasons as applied in claim 1, above. Claim 35 recites limitations similar to claim 33; thus, claim 35 is rejected for the same reasons as applied to claim 33, above. Claim 36 recites limitations similar to claim 34; thus, claim 36 is rejected for the same reasons as applied to claim 34, above.

Response to Arguments

Applicant's arguments with respect to claims 1, 3-7, and 9-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TD
May 1, 2004

TD



Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700